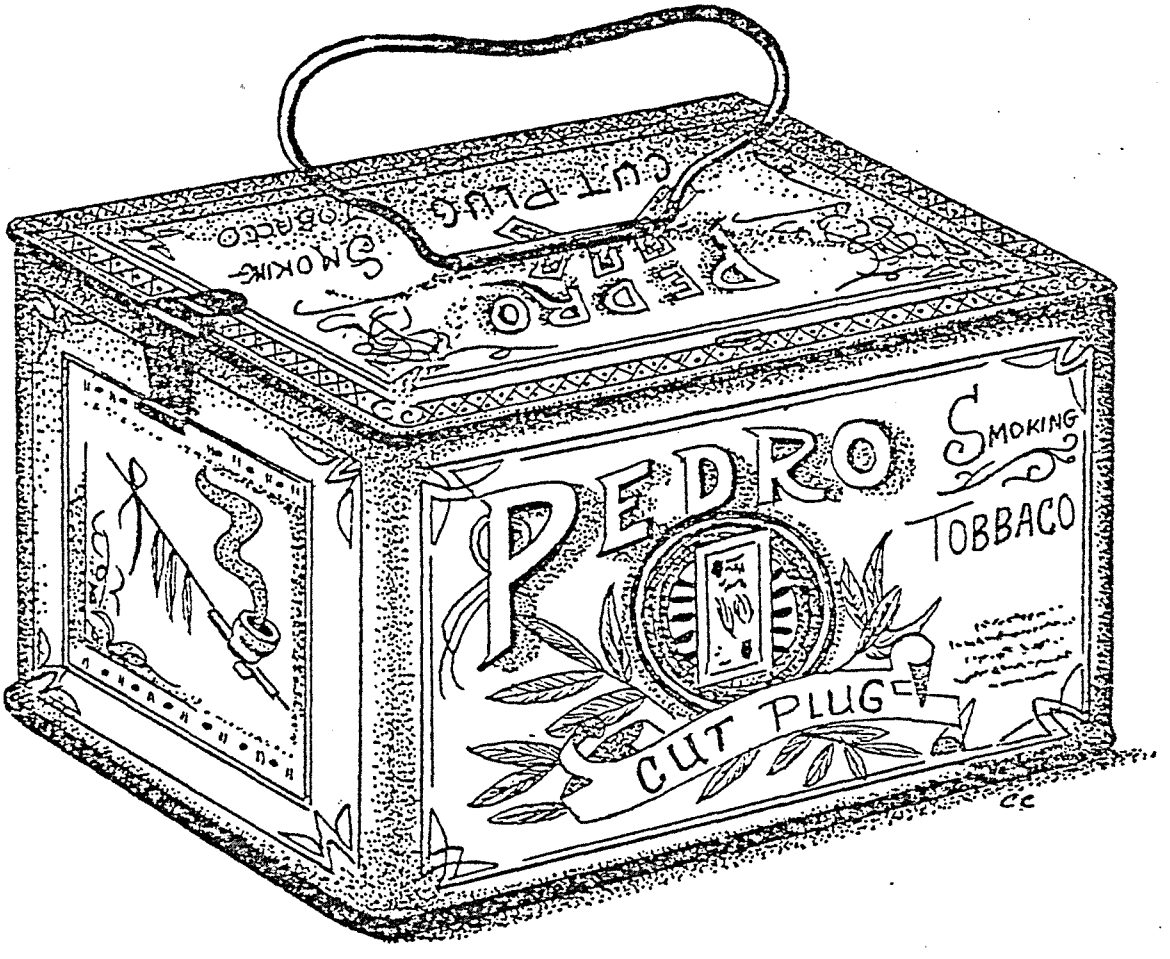
TIN CANS: A FEW BASICS



Region 5

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Klamath National Forest
2/80

This brief overview illustrates recognized technological and can type changes that have occurred during the evolution of the tin can. The discussion is not intended to be complete or comprehensive. It is designed only to allow ease of field identification of these historic artifacts.

The illustrations within this paper were done by Chris Colvard.

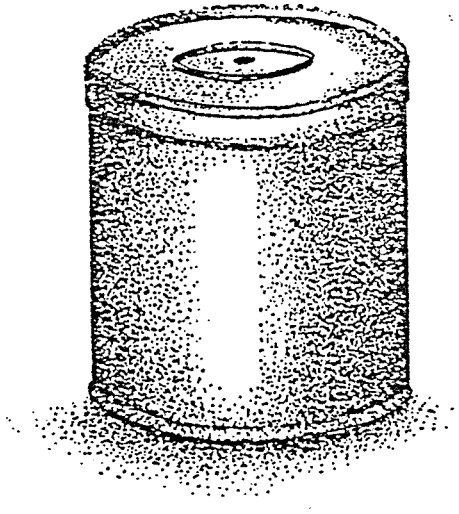
Condensed Milk

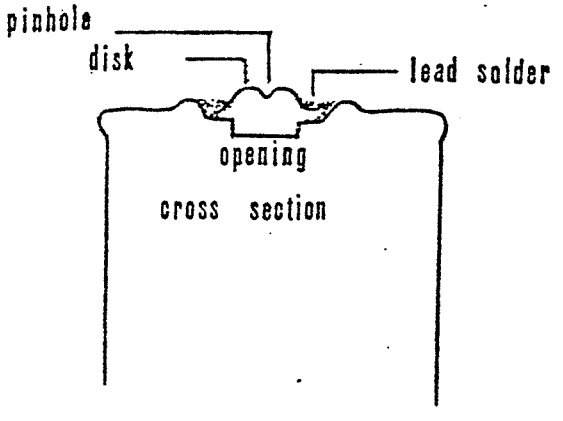
One of the most widely distributed hole-in-top tins, was the Borden condensed milk can. In 1856 Gail Bordon of Wilcottville, Connecticut, developed condensed milk and began canning it. The true value of this product was not recognized until it was used extensively in the Spanish American War, in 1898. By 1900, Borden's can had its lid and bottom flush with its sides and did not have a matchstick filler hole in the center of the lid, and it was embossed around the exterior portion of the top. The majority of hole-in-top tins had no embossing, and included a center matchstick filler hole that was sealed with solder (Clark 1977:11,71; Fontana et al. 1962:74; Page 1914:42).

Before 1932 Evaporated and condensed milk cans, Number 1 tall cans, dimensions were 4 3/4"x3", and the small can was 2½"x2½". (I assume that these measurements became standardized after 1900, perhaps with the adaption of the sanitary can.) A Borden milk can ca. 1900 illustrated by Clark is only 3" in height. These tins were changed in size in 1932 to 3 3/8"x3" and 4"x2 15/16". About 1940 the Borden "Eagle Brand" condensed milk can was no longer manufactured with the flush lid, but was sold in a recessed lid tin (Clark 1977:71; Fontana et al. 1962:75; Pulati 1973:29; Rock 1978:5; Ward et al. 1977:240).

Hole-in-Top Tins

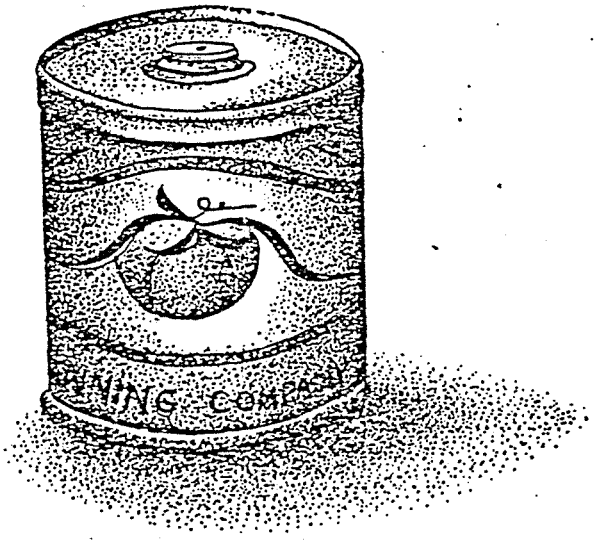
Hole-in-Top or Hole-and-Cap Cans were manufactured between 1810 and the early 1900's in both England and the United States. These heavy iron cans were clumsily made by today's standards, but they did serve the purpose of their day. They were manufactured by hand. A tinsmith would cut tinplate into the desired shapes and form the body around a cylinder before soldering the side seam. The side seam solder may be as high as 1/8 of an inch. Separate top and bottom pieces were cut. The bottom was flanged and soldered onto the body, and then the top was placed on the can. Tops had a hole left in the center about one inch in diameter for forcing the food through. Once the top was soldered in place, and the contents placed within the can, a center tinplate insert with a pinsized hole in the center was placed over the opening and soldered in place. The can and its contents were boiled until steam escaped through the pinhole and then a drop of solder was used to cover this opening. The pin hole is often called a match stick hole. The Hole-in-Top can, also known as "hole and cap", or "stud hole" can, is found in sites that were occupied from the time settlers first came west until just after the turn of the century. If a site contains a fair number of cans, and all are hole-in-the top style you can assume that the site was occupied between 1850 and the very early 1900's. In 1922 the hole-and-cap can was replaced completely by the double seam sanitary can (Clark 1977:14; Cruess 1948:37; Fontana et al. 1962:68, May 1937:95; and Rock 1978:4).





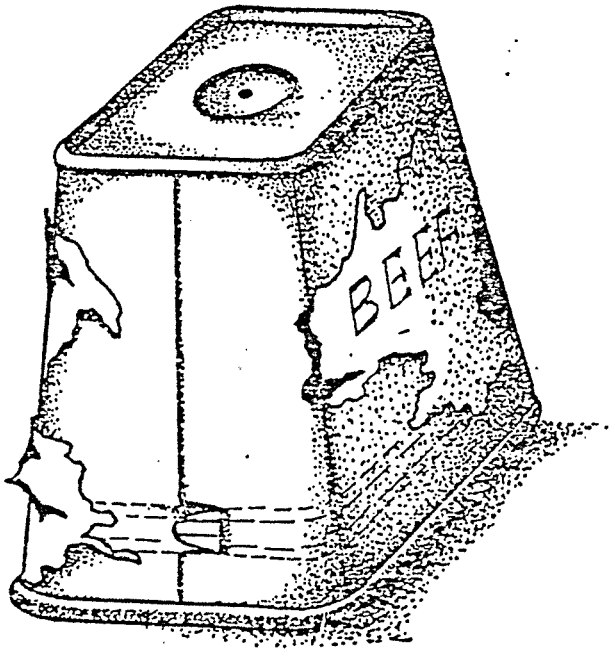
Fruits and Vegetables Hole-in-Top Tins

By 1825 vegetables were being canned in tins, by Thomas Kensett and Ezra Daggett. The 1860's was the time period when canned corn rapidly developed. Volney Barker and John Winslow Jones of Maine, began this phase of speciality canning. From the 1860's, until the early 1900's, nearly all fruits and vegetables were experimented with and sold in hole-in-top tins. Cutting and Company of San Francisco, provides us with a good example of the varieties of vegetables canned. In 1863, they were canning blackberries, damson plums, green gage plums, peaches, apricots, currants, grapes, quinces, as well as, blackberry, rasberry, apple and cranberry jams and jellies. These were packed in 2 lb., 2½ lb., 5 lb., one gallon, and five gallon tins (Jacobs 1914:31; May 1937:10,12,14-15).



Canned Meat

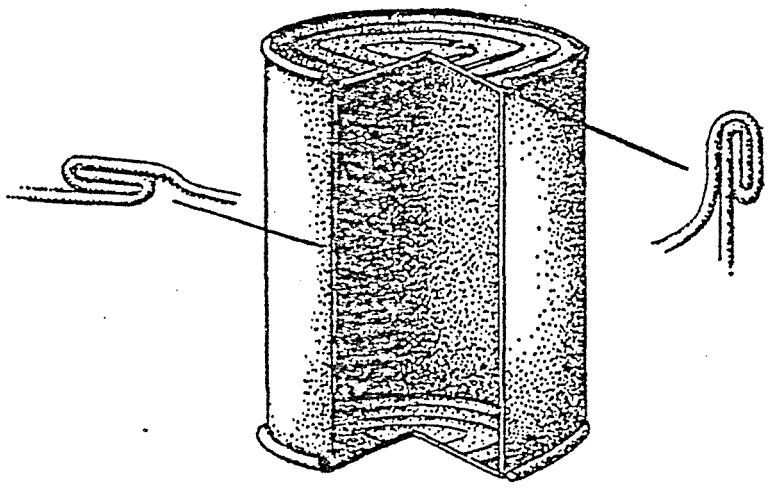
In 1875 a variation of the hole-in-top tin was first used commercially. This round-cornered, hand soldered taper can was introduced by Wilson Packing Company, and Libby, McNeill and Libby, both of Chicago. This can was brought on the market for corned beef, roast beef, etc. The size of these cans were often 1, 2, 4, 6, 10, and 14 pounds. The meat was precooked, so that it would not shrink; and by packing it in the tapered tin, the bottom could be removed, allowing the entire contents to slide out intact. Small, 3 5/8" tall, tapered tins of corned beef are still available in 1980, but they are imported from Argentina and Brazil and their weight is 12 oz. or 340 g (Collins 1924:153-154; Fontana et al. 1962:73,75-76; Lee 1914:44; May 1937:217; Pulati 1973:17).



Double Seamed Cans: Sanitary Cans

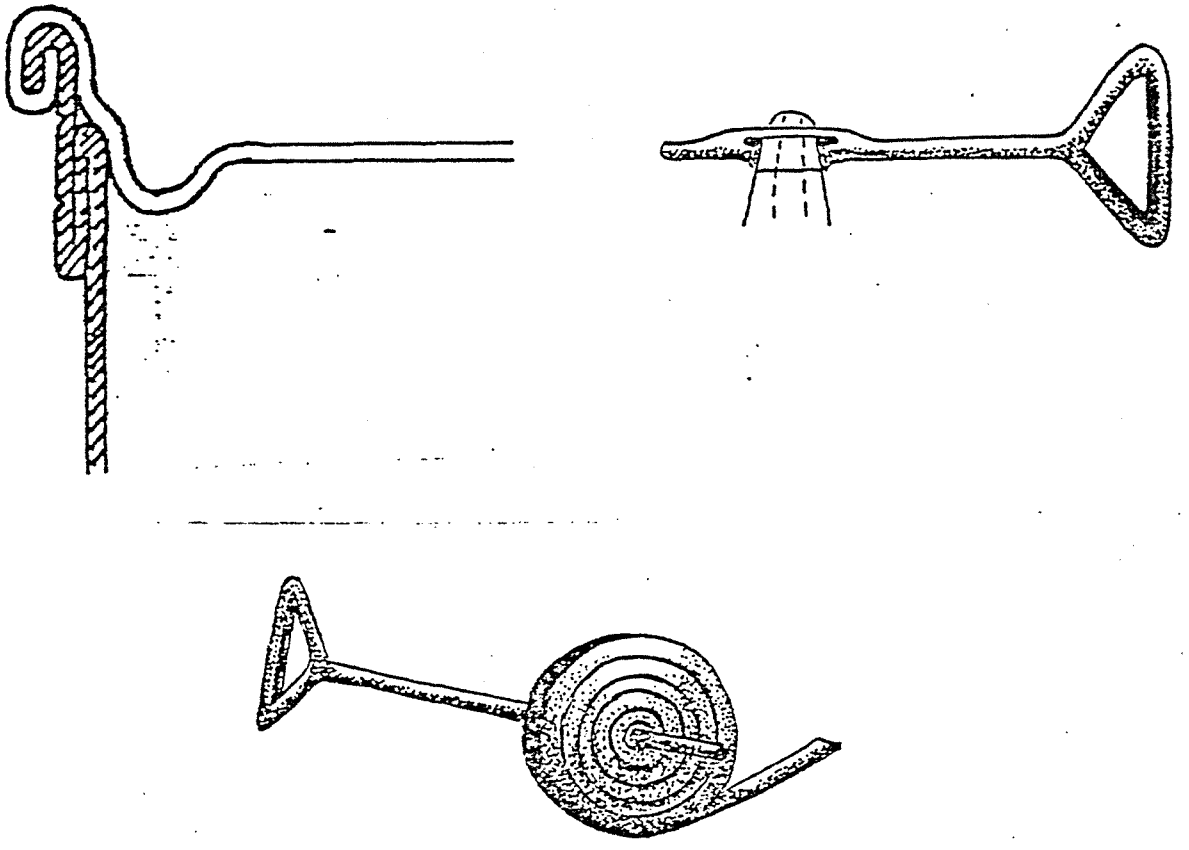
In the late 1890's several patents were granted for double seamed cans. Charles Aims and Julius Brezinger of New York developed a tin can technique that crimped both tops and bottoms of cans with double seams. This was improved between 1895 and 1899. If you find tin cans that incorporate double seaming manufacture techniques, you can be certain that they were made after 1895. The key opener was often used on cans made using this technique of tin container construction. After 1900, the "Sanitary Can: or open-top can, began to replace the hole-in-top tin container as the type of tin most frequently used. This can type used double seam style construction and an edge seal. It was introduced in the 1850's, but it became practical to manufacture in the U.S. between 1894 and 1903.

In 1904 the Sanitary Can Company was formed to meet the demand for tin containers as they were used for more and more products. These cans often were lacquered or coated so that no chemical reaction would take place with the foods packed within them. This addition to the canning process allowed a greater variety of products to be packaged successfully in tins than could be done before, such as pineapple, grapefruit, and tomatoes (Clark 1977:11,18,31; Cobb 1914:94-96; Cruess 1948:37-38; Fontana et al. 1962:71-72; Stern 1949:174).



Key Opened Cans

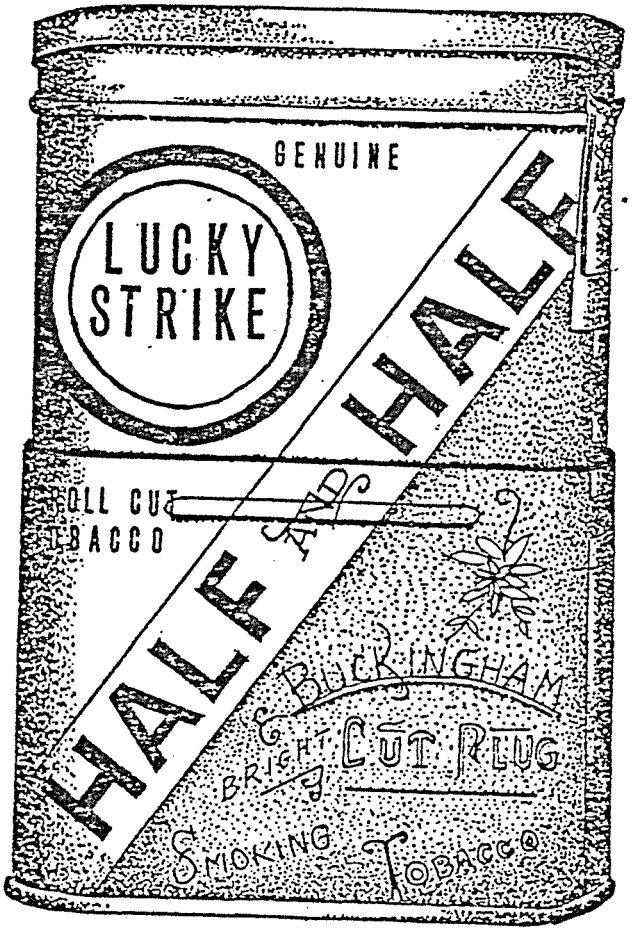
In 1895 Edwin Norton of Chicago, developed a key method of opening tins. This method rolled a scored strip from the can, so that the top or bottom could be removed as a single unit. The tapered meat can is a good early example of a tin opened by a key (Cobb 1914:94; Fontana et al. 1962:71-72).



Pocket Tobacco Tins

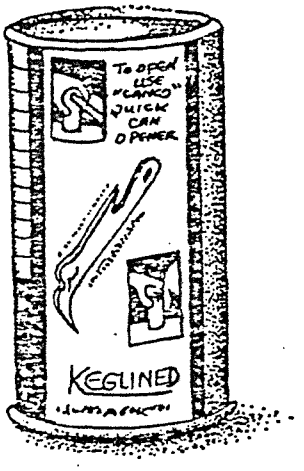
In many post 1900 sites, tin pocket tobacco tins are present. The most common of these is the Prince Albert can. This product was patented in 1907, and first produced in tins in 1913. Flat tobacco tins usually measure 4¼"x3 7/8" (Music 1971:54).

The tin illustrated here, is telescoping, and was patented in 1930, by American Tobacco Company of New York.



Beer Cans

Some experiments were run in the production of beer cans in the early 1930's, but commercial production did not take place until 1935. Beer cans were both spout-top and flat-top types. The flat top can brought about the invention of the "church key" this same year (Dolphin 1977; Clark 1977:122; Martells 1976:8; Wright 1977:3).



In 1942, civilian beer-canning ceased. The normal designs were painted over in olive green for distribution in the European Theater. Beer shipped to the South Pacific, often was left labeled as it had been for domestic distribution. In 1947, domestic production of beer packaged in cans resumed (Dolphin 1977; Martells 1976:9).

The last cone-top beer cans were produced in 1959. (Dobbs & Harris 1974:7.)

In 1959 the first all aluminum 7 oz. beer can was introduced by Coors and Gunther brewers. Premo brought out an 11 oz. can (Dolphin 1977).

In the late 1950's and early 1960's, metal beer cans with aluminum tops, "soft tops", were the dominant variety of beer cans (Clark 1977:33; Martells 1976:9,10,20; Wright 1977:23).

The aluminum pull-tabs were introduced in the early 1960's as well (Clark 1977:11,33).

Soft Drink Tins

The first experiments in canning soft drinks took place in 1938. This was done by Clicquot Club Company of Millis, Massachusetts. The Ginger Ale ate through the can, and this experiment was given up. Canned soda was attempted again in 1950 by the Pepsi Cola Company, but the cans exploded and Pepsi abandoned canning soda for a time (Teopfer 1976:4).

It was 1953 before soda was successfully canned, but by 1954, most of the soft drink industry was canning their product. The first canned soda was placed in cone top cans. By the end of 1954, nearly all soda companies had changed to flat top cans. Royal Crown started canning soda in '54, and by 1960, it was the largest canner of soft drinks; Pepsi and 7-UP followed in the late 1950's. Coca-Cola began to experiment with cans in 1955, and was canning for military use in 1956. They got into canning in a large way in 1959-1960; when Coke was sold nationwide in flat top cans. In the early 1970's the first all-aluminum soft drink cans were produced (Toepfer 1976:4).

Note:

To those who are recording historic tins, observations should be made about the technological level of the tin i.e., hole-in-top or sanitary can; but this alone is not adequate, the method of opening should be recorded, as well as, any trademarks or embossing that is present. The material used in construction should be noted - metal, aluminum, or a combination there of, are examples. The type of seam construction is also an attribute worthy of note.

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